

Appl. No. 10/608,589

Reply to Office Action of November 25, 2005

**REMARKS**

Claims 1-11 are pending in the application. These claims were rejected as follows:

Claims / Section	35 U.S.C. Sec.	References / Notes
1, 5-8, 10 & 11	§102(b) Anticipation	• Uvacek (U.S. Patent No. 6,154,546).
2-4	§103(a) Obviousness	• Uvacek (U.S. Patent No. 6,154,546); and • Klope, et al. (U.S. Patent Pub. No. 2003/0070868).
9	§103(a) Obviousness	• Uvacek (U.S. Patent No. 6,154,546).

5 Applicant thanks the Examiner for reconsidering the previous response and withdrawing the prior rejections. Applicant has provided discussion below for distinguishing the present invention from the newly cited combination of references and has added new claims 12 and 13 for consideration by the Examiner. Support for newly added claim 12 can be found in paragraph [0024  
10 and Figures 1 and 2. Support for newly added claim 13 can be found in Figures 1 and 2.

Applicant's use of reference characters below is for illustrative purposes only and is not intended to be limiting in nature unless explicitly indicated.

**35 U.S.C. §102(b), CLAIMS 1, 6-8, 10 AND 11 ANTICIPATION BY UVACEK**

15 1. *Uvacek fails to teach or suggest a microphone module and hearing aid device module being detachably connectable with the microphone module housing supplementing the hearing aid device module housing to have a uniform*

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*effect, as required by claim 1. The boot of Uvacek does not provide a supplemental housing nor creates a uniform effect.*

In the OA, on p. 2, the Examiner cites Uvacek as teaching all of the elements of independent claim 1, including:

- 5            wherein the microphone module housing  
             supplements the hearing aid device module housing  
             to form a housing of the hearing aid device having a  
             uniform effect.

(citing to Figures 1 and 8, and 6/48-60).

- 10           Claim 1 requires that the microphone module housing must supplement  
             the hearing aid device housing and must do so to form a housing of the hearing  
             aid device having a uniform effect.

Since "uniform effect" is not a well-defined term of art, the Applicant has acted as his own lexicographer and defined this term in the Specification. In

- 15           paragraph [0010], the applicant stated:

- As a result, the hearing aid device has both the  
             advantage of the compact structure having a housing  
             that makes a uniform impression/effect as well as the  
20           advantage of a modular design concept wherein the  
             microphone module can be easily replaced.  
             Additionally, the housing making the uniform  
             impression lends the hearing aid device an aesthetic  
             appearance. The uniform effect may be a shape that  
25           forms a cohesive whole, possibly having a traditional  
             hearing aid shape and/or minimizes the geometric  
             curves or elements of the device.

- As can be seen in Figs. 1, 2 and 8 of Uvacek, the partial cylindrical shell,  
             identified as a "boot", does not serve to form a cohesive whole for the hearing  
             aid, nor serves to create a traditional hearing aid shape, nor serves to minimize  
30           the geometric curves or elements of the device.

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Uvacek is generally silent as to the possibilities for the boot shape.

However, at 4/3-5, it states, "The connection may be mechanical, in that the boot 54 is adapted to, for example, snap into place in attachment with a portion of the DHA 25." [emphasis added]. Clearly the boot of Uvacek is not designed form a housing of the hearing aid device having a uniform effect, i.e., forming a cohesive whole with a traditional hearing aid shape or minimizing the geometric curves or elements of the device. If anything, as an appendage that attaches to the outside of the device only partially around the DHA 25, the boot complicates the housing of the hearing aid so that the uniform effect of the DHA 25 itself is destroyed or at least compromised.

Therefore, Uvacek fails to teach or suggest that the microphone module housing supplements the hearing aid device module housing to form a housing of the hearing aid device having a uniform effect, as required by claim 1.

Applicant relies on the arguments made with respect to claim 1 for the lack of anticipation of the remaining claims in the application and the lack of providing obviating disclosure with respect to the use of Uvacek in combination with any of the other references. However, Applicant makes further additional distinctions for various other claims below.

2. *Uvacek fails to teach or suggest that the microphone of the microphone module is fashioned as a directional microphone, as claimed in claims 5 and 7.*

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In the OA, on p. 2, the Examiner indicates that Uvacek discloses that the microphone module is fashioned as a directional microphone, citing to col. 3, lines 1-7.

The Applicant respectfully disagrees with this section of Uvacek as  
5 teaching a directional microphone.

The purpose of the probe microphone, as taught by Uvacek, is to provide a transduction of the acoustic signals present at/inside the patient's eardrum.

See 4/45-48:

10 In operation, sound signals detected inside the patient's eardrum are relayed by probe tube 19 to boot probe microphone 22, which produces an electrical representation thereof.

Given this function, it would make absolutely no sense to utilize a directional microphone for that purpose... there is no need for directionality of the  
15 sound inside of the eardrum. The Examiner cites 3/1-7 of Uvacek as disclosing a directional microphone as a part of the microphone module. Uvacek states:

20 The system of the invention is applicable to both in the ear (ITE) and behind the ear (BTE) hearing instruments, with various adaptations of the probe microphone being available for each. Moreover, directional type instruments are accommodated by the invention, which in the corresponding  
25 embodiments user, as the probe microphone, one of the multiple microphones characteristic of such instruments.

The inference of this portion is not that the probe microphone is itself directional (it has no need to be, for reasons noted above), but rather that when this probe microphone is used for a hearing aid that is itself directional (i.e., using multiple microphones), that the probe microphone uses one of the multiple

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microphones (of the actual directional hearing aid itself) that is characteristic of such [directional] instruments. This does not say that the probe microphone itself is directional, but rather only that it can use a microphone of such multi-microphone directional hearing aids that the probe might be used with.

5 Even more specifically, with respect to claim 7, the Examiner states that Uvacek discloses at least two microphones that form a directional microphone system. To the contrary, however, the two microphones of Uvacek are not provided for the purpose of directivity, but rather for the purpose of providing different dynamic ranges: see 6/48-50:

10 Fig. 8 shows the user of two microphones 60 and 71, having different dynamic ranges whose outputs are fed to DHA 30.

Clearly these two microphones are being provided for purposes other than directivity. In fact, Uvacek teaches that only one of the two microphones is

15 active at any one time, by stating (6/54-56):

Any known electronic switching scheme (not shown) may be employed to selectively activate one microphone while deactivating the other microphone.

This teaching is completely at odds with the use of a pair of microphones  
20 for directional purposes whose signals would be simultaneously combined and processed to achieve the necessary directional characteristics.

3. *The combination of Uvacek and Klope fail to teach or suggest providing the attenuation-damped connection arranged at at least one oscillatory node of characteristic oscillations of the hearing aid device module housing as*  
25 *claimed in claim 3.*

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In the OA, on p. 4, with respect to claim 3, the Examiner notes that Uvacek does not expressly disclose an attenuation connection for connecting the microphone module and the hearing aid device module wherein the attenuation damped connection is arranged at at least one oscillatory node of characteristic  
5 oscillations of the hearing aid device. The Examiner then provides Klope as disclosing an attenuation damping material for an attenuation-damped connection of a microphone in a hearing aid (citing to Fig. 3 and paragraph 0023). The Examiner notes that it would have been obvious to one of ordinary skill in the art to provide a damping layer to prevent unwanted vibration (citing to  
10 paragraph 0001).

Klope is absolutely silent as to where any attenuation-damped connection is arranged in a hearing device—there is no teaching or suggestion whatsoever of locating the attenuation-damped connection at an oscillatory node of characteristic oscillations of the hearing aid device module housing. There are a  
15 huge number of possible places to locate the attenuation-damped connection in a hearing device, and simply asserting that such a location would be obvious is simply engaging in precisely the type of hindsight reasoning that is not permitted by the statute, case law, or MPEP.

For all of the above reasons, Applicant respectfully asserts that the claim  
20 language clearly distinguishes over the prior art, and respectfully request that the Examiner withdraw the §§ 102, 103 rejections from the present application.

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CONCLUSION

Inasmuch as each of the objections have been overcome by the amendments, and all of the Examiner's suggestions and requirements have been satisfied, it is respectfully requested that the present application be reconsidered, the rejections be withdrawn and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being telefaxed to the U.S. Patent and Trademark Office telephone number 571-273-8300 and addressed to: Mail Stop Amendment, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on February 27, 2006.

